

*Rhinolophus acrotis brachygnathus*, subsp. n.

*Diagnosis*.—Like *Rh. acrotis Andersoni*, but upper and lower tooth-rows, as well as mandible, distinctly shorter.

*Skull and dentition* (two skulls examined).—Although being apparently, on an average, larger than *Rh. a. Andersoni*, the present form has a smaller skull, smaller teeth, shorter tooth-rows and mandible (conf. measurements).

*Colour*.—The general colour of the single skin at my disposal (♀ imm.) is much darker than in the type of *Rh. a. Andersoni* (♂ imm.): greyish “drab” on the upper-side, tinged with “mouse-grey” on the hinder back; “ecru-drab” on the underside; base of hairs on the back of the same colour as the underside.

*Type*.—♂ ad. (in alcohol). Ghizeh. Lower Egypt, Dec. 16th, 1891; collected and presented by Dr. J. Anderson. B. M. no. 92. 9. 9. 7. There is a second specimen (♀ imm., skin) in the Museum from the same locality.

*Distribution*.—Known only from Ghizeh.

*Remarks*.—The absence, even in immature individuals, of the lower  $p_3$  and upper  $p^2$  distinguishes this form sufficiently from the only species with which it could possibly be confounded, viz. *Rh. euryale* and *Rh. elivossus*.

Up to the present time three forms of *Rh. acrotis* have been described: *Rh. acrotis* (typicus) from Keren, Erytraea; *Rh. a. Andersoni* from the Eastern Egyptian Desert, about 22° N., 35° E.; and *Rh. a. brachygnathus* from the environs of Cairo.

*Measurements of Rh. acrotis brachygnathus and Andersoni.*

	<i>Rh. a. brachygnathus.</i>	<i>Rh. a. Andersoni</i> *.	
	Type. ♂ ad.	4 immature spems, 5 skulls.	
		Max.	Min.
	mm.	mm.	mm.
Forearm .....	47·5	46·8	44·2
3rd metacarpal .....	32	29·5	27
4th metacarpal .....	33·7	31·2	29·7
5th metacarpal .....	33·8	32·2	30
Mandible, condylus to front of incisors..	12·6	13·5	13
Front of upper canine to back of $m^3$ ....	7	7·8	7·5
„ lower canine to back of $m_3$ ....	7·6	8·5	8·2

\* It may well be noticed that all the (4) specimens, including the

*Rhinolophus fumigatus exsul*, subsp. n.

*Diagnosis*.—Apparently similar in all essential characters to *Rh. fumigatus* (= *Antinorii*), but decidedly smaller. Forearm 49.5 mm.

*External characters*.—To judge from a dried skin, the shape of the nose-leaves and ears is the same as in *Rh. fumigatus*. The lateral margins of the sella bear the dense clothing of long hairs characteristic of the *fumigatus*-group of species; the hairing on the front face of the sella seems to be sparser and shorter than in the typical form. General colour above dark greyish "drab," darkest on the hinder part of the back, brighter drab on the underside of the body; base of hairs, throughout, dark smoke-grey.

*Measurements*.—Under the next form.

*Type*.—Ad. (skin). Kitui, British East Africa, 3500 ft., Jan. 3rd, 1901; collected and presented by Mrs. H. Hinde. B. M. no. 1.5.6.3. Original no. 68. The type is the only specimen known to me.

*Distribution*.—Probably the whole of the Ukamba district.

*Remarks*.—This is evidently a southern offshoot of *Rh. fumigatus*, cut off from the (Abyssinian) main stem of the species, and developed into a distinct race. From *Rh. Deckeni*, an inhabitant of nearly the same regions, it is easily distinguished by the longer and differently shaped nose-leaves, by having the margins of the sella clothed with long straight hairs, by the much smaller size (forearm in *Rh. Deckeni* 54.7 mm.), by having the 4th metacarpal only about 2 mm. longer than the 3rd (in *Rh. Deckeni* 5 mm. longer), by the comparatively very short 2nd phalanx of the 5th finger, &c. I have not seen a skull of this form; it will, no doubt, be found to have lost both the lower  $p_3$  and the upper  $p^2$ , agreeing in this respect with *Rh. fumigatus* and differing from *Rh. Deckeni*.

*Rhinolophus Hildebrandti eloquens*, subsp. n.

*Diagnosis*.—A small race of *Rh. Hildebrandti*. Forearm 57.7–60.5 mm.

*Wings*.—*Rh. Hildebrandti* is among the largest species of

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type, of *Rh. a. Andersoni* are immature (though apparently full-grown or very nearly full-grown) individuals, as proved by the still not ankylosed epiphyses of the metacarpals and phalanges. This must be borne in mind when comparing their measurements with those of the adult *Rh. a. brachygnathus*. It will be seen that, notwithstanding their smaller size (and immature age), the specimens of *Rh. a. Andersoni* have markedly larger skulls and teeth than those of *Rh. a. brachygnathus*.

its genus: *Rh. H. eloquens* barely surpasses *Rh. ferrum-equinum*. The reduction in size affects mainly the forearm and metacarpals, far less the phalanges. In the length of the forearm the *largest* specimens of *Rh. H. eloquens* fall short of the *smallest* individuals of the typical form; this character, therefore, evidently affords a most reliable mark of distinction between the two races. As to the metacarpals, maximum measurements of *Rh. H. eloquens* approach, very closely, minimum measurements of *Rh. H. typicus*.

*Colour*.—*Rh. Hildebrandti* (4 skins) is dark greyish "drab" on the upperside, bright drab beneath. *Rh. H. eloquens* (3 skins) is tinged with "wood-brown" above, next to "broccoli-brown" beneath. Base of the hairs, on the upper and under sides, dark smoke-grey. Immature individuals (1 skin) are slightly duller in colour than adults.

*Skull and dentition*.—All the measurements markedly smaller than in typical *Rh. Hildebrandti*. The length of the upper and lower tooth-rows, as being almost quite independent of the individual variation, is the best character by which to distinguish between the skulls of the two forms (conf. measurements below). In *Rh. Hildebrandti* (6 skulls) the upper  $p^2$  is nearly always present and easily perceptible; the lower  $p_3$  very minute, but generally not completely wanting. In *Rh. H. eloquens*  $p^2$  is exceedingly small, hair-fine, even under a strong lens;  $p_3$  (as it appears from examination of four skulls) almost always wanting, even in immature specimens.

*Type*.—Ad. (sk.), unsexed. Entebbi, Uganda; collected and presented by F. J. Jackson, Esq. B. M. no. 99. 8. 4. 4. Three other specimens, from the same locality, are preserved in the Museum.

*Distribution*.—Probably the whole of the district surrounding Albert, Albert Edward, and Victoria Nyauza.

*Remarks*.—The present form is of great interest from a phylogenetic no less than from a zoogeographical point of view. *Rh. Hildebrandti* and *Rh. fumigatus* (= *Antinorii*)\* form a well-defined group of species, agreeing in the general form of the ears, in the size and shape of the horseshoe, the sella, and the posterior connecting-process, in having the margins and front face of the sella clothed with long hairs, in the general form of the wings, the comparative shortness of the tail, and the more essential characters of the skull

\* Together with *Rh. aethiops*; but this species, although extremely interesting as the hitherto only known West-African representative of the group, has a more isolate position, differing much more from the two other species than these latter *inter se*.